

SALTBURN URBAN DISTRICT COUNCIL.

COMBINED DISTRICT COUNCILS

GUISBOROUGH UNION.

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# REPORT

FOR THE YEAR 1913

OF THE

MEDICAL OFFICER OF HEALTH,

W. W. STAINTHORPE, M.D. C.M., D.P.H.



## To the Chairman and Members of the Saltburn Urban Council.

GENTLEMEN,

I have pleasure in submitting for your consideration my Report for the year ending December 31st, 1913.

Standing on a cliff about 150 feet above the sea, bounded on the north by the sea, on the east by a glen which curves to the south and on the west by a shorter glen, Saltburn possesses natural advantages conducive to health.

### Birth and Mortality Rates.

Population at middle of 1913 (estimated)	...	3500.
Births (corrected)	...	53 (32 males, 21 females).
Birth rate	...	15·08.
Deaths (corrected)	...	39 (19 males, 20 females).
Death rate	...	11·14.
Infant mortality rate (per 1000 births)	...	94·4.
Infectious diseases death rate (tuberculosis excluded)	...	0·86.
Tuberculosis death rate	...	0·86.
Diarrhœal diseases death rate	...	Nil.

### Inspections.

Nuisances ascertained to exist during visits made by the Inspector are either reported by entry in his journal, or the particulars are forwarded to the owner or agent of the property, or to me. Those which come under my own observation are either reported direct to the Council or particulars are forwarded to the Inspector for entry in his journal, or are communicated to the owner or his agent. The Inspector's journal and my report are placed before the Council (or a Committee) at each of its monthly meetings. The several items in the journal and the report are considered and instructions are given for the serving of the necessary notices. In most cases an informal notice is issued, if not complied with the matter is reported to the Council.

Number of inspections made	...	...	605
Number of Inspections under Housing Acts	...	...	126
Ditto	under Factory and Workshop Act	...	60
Ditto	under Cowsheds, &c., Order	...	18
Ditto	of slaughterhouses	...	45
Number of visits under Notification Act	...	...	35
Number of notices sent to Teachers (re infectious cases)	...	...	22
Number of premises disinfected	...	...	25
Number of informal notices served	...	...	24
Number of statutory notices served	...	...	1
Number of notices complied with	...	...	16
Number of outstanding notices	...	...	10

### Stream,—pollution of.

The pollution of the stream flowing into the sea at Saltburn which resulted from a break in a branch sewer caused by mining subsidences, in the Skelton and Brotton District, has ceased, a new length of sewer having been constructed.

### Scavenging, &c.

Number of fixed ashpits in combination with conveniences	...	...	2.
ditto not in combination ditto	...	...	70.
Number of iron moveable receptacles with covers	...	...	320.

During the last two years eight middens have been replaced by moveable receptacles.

The type of refuse receptacle required to be provided in connection with new houses is a galvanised iron pan, covered in, in suitable position.

The scavenging of refuse receptacles, &c., is carried out by contract. Ashpans are emptied once a week, fixed receptacles once a fortnight.

A covered cart is used for the collection of the refuse. In the summer months kitchen refuse is collected daily where desired, separate receptacles being used for that purpose.

The refuse is not sorted, but scrap-dealers are allowed (on payment of a small sum) to remove tins, &c. All refuse is removed to a tip in the district situate about three-quarters of a mile from the nearest house in the district and about 200 yards from the nearest house in the adjoining district. Tradesmen make their own arrangements for the removal of trade refuse to the tip.

The cleansing of the streets is carried out by the Council's employees under the supervision of the Surveyor. Occupiers of stables, &c., make their own arrangements for the removal of animal manure: the Byelaw requires that the manure be removed once a week.

### Water Supply.

The whole of the houses in the town are supplied by the Cleveland Water Company. Hitherto no action has been taken to ascertain whether or not the water at any time is plumbosolvent; it is proposed to carry out tests for that purpose.

### Cowsheds and Dairies.

The Register contains the names and addresses of three cowkeepers and five dairymen. Inspections of these were made from time to time:—nothing was noted requiring comment.

### Food Inspection.

The premises on which foods are prepared are as follows:—

1	Bakehouses	...	...	8	4	Fish frying	...	...	1
2	Ice-cream making	...	...	2	5	Slaughterhouses	...	...	3
3	Sausage making	...	...	2					

Nos. 1, 2, 3, and 4 were inspected under the Factory and Workshop Act. The inspections of the slaughterhouses numbered forty-two.

### Schools.

One Elementary.

One Secondary (Council).

One Private, girls.

One Private, boys.

All with good water supply and all in good condition.

### Housing, Town Planning, &c., Act, 1909.

Number of dwelling-houses inspected under the Housing, Town Planning &c., Act, 1909	...	...	...	...	...	22
Number of dwelling-houses considered unfit for habitation	...	...	...	...	...	nil
Number of representations made with a view to making closing orders	...	...	...	...	...	nil



Number of closing orders made	...	...	...	...	nil
Number of dwelling-houses in which the defects were remedied without the making of closing orders	...	...	...	...	nil
Number of dwelling-houses made fit after making of closing orders	...	...	...	...	nil
Number of notices served to make houses fit for habitation	...	...	...	...	nil

In only one house was any defect found, namely inefficient lighting due to the proximity of a tree, the premises were also in a dirty condition :—the tree was cut down and the house cleansed.

House Accommodation.

There is no indication that the house accommodation in the district is insufficient. Nineteen houses were erected during the year.

Infectious Diseases (Notification) Act.

Cases of Infectious Disease notified during the year 1913.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.							
	At all Ages.	At Ages.—Years.						
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and up-wards.
Diphtheria (including Membranous croup) ...	2			1	1			
Scarlet Fever ..	37		6	28	3			
Erysipelas ...	1						1	
Pulmonary Tuberculosis ...	2			1			1	
Other forms of Tuberculosis ...	4				1	3		
Totals ...	46		6	30	5	3	2	

No case of any of the following diseases was notified :—  
small-pox, typhus fever, enteric fever, puerperal fever, poliomyelitis, cerebro-spinal meningitis.

There are certain factors influencing the spread of the infectious diseases of childhood which require fuller appreciation than is accorded them at present. Given two districts or two parts of a district, A and B. Let the child population in A be greater proportionately than in B, then in A the number of cases will, other things being equal, be larger than in B. Let there also be in A the existence of some condition (not present in B) which favours the spread of the disease, such as the aggregation of a large number of houses of one type the occupants of which intermix freely with their neighbours, then the greater prevalence of the disease in A can be readily understood and does not require for its explanation the assumption that it results from some local insanitary condition. It is very important that the public should understand the conditions which lead to the dissemination of infectious diseases. Anything which fosters the belief that this is due to defects in sanitary arrangements induces carelessness. It is natural that it should be argued that if such defects are the cause, it is useless to take the usual precautions as to isolation, &c.

On receipt of a notification the following information is obtained and entered on a Form:—the day and Sunday schools attended by children living in the infected house, the occupation of the householder and of other adults, the milk supply, the number of occupants, the number of rooms. Where it appears necessary or desirable I visit the infected house. Disinfection of bedrooms is carried out by the Council's workmen under the supervision of the Sanitary Inspector.

### Scarlet Fever.

Number of cases notified	...	37.
Number of deaths	...	1.
Case mortality	...	2·7 per cent.

Up to the middle of October the district was free from scarlet fever. On the 18th of that month I received notice of four cases in three houses, all in one street. On the same day I was notified of two cases in a house in an adjoining district, the children living in which attended the Saltburn Elementary school. On the 19th two cases were reported followed by two on the 20th, two on the 22nd, and one on the 24th. Enquiries made by me at each of the infected houses indicated that the source of infection was common to all and that in all probability the fever had been contracted almost simultaneously. All the affected children attended the elementary school. From the Head Teacher I obtained the names and addresses of children who had returned to school after recent absence and of those who were absent. Numerous visits and enquiries were made by me for the purpose of ascertaining the possibility of the existence of a missed case but without definite result. The possibility that some particular milk supply was implicated was considered, the evidence however absolutely negated this. The elementary school was closed on October 31st for a fortnight. During this time the fever continued to spread, nor were the patients elementary school children only. There appears to be little doubt that the dissemination of the fever originated through the attendance at the school of some child or children in an infectious condition and that subsequently it spread by contact between the infected and the healthy outside the school.

When several cases of scarlet fever occur among children grouped together in a school it is probable that in many instances the medium of infection was a child suffering from the disease in its initial stage. It is not uncommon to be informed when making enquiries at school that such and such a child was sent home as it appeared to be feverish or was sick. Assuming that the child was subsequently found to be suffering from the fever it can readily be understood that it may have affected children sitting near it.

### Diphtheria.

It does not follow when the specific bacilli of diphtheria invade a body that the disease will manifest itself (if ever it does so) after the ordinary incubation period. Diphtheria is first a local disease then a general. If the local conditions, that is the state of the mucous membrane of the mouth, throat, nose, &c., are unfavourable to the growth of the bacilli at the time of invasion they fail to produce the disease. But the bacilli may remain in contact with the membrane for a considerable time ready to take effect should the conditions change in such a way as to favour their growth and the production and absorption of the poison which renders the disease general.

Number of cases notified	...	2.
Number of deaths	...	nil.

Of the two cases one occurred in January, the other in December; in the former the infection was contracted in an adjoining district, the source of infection in the latter I was not able to trace.

## Measles.

No death from measles was recorded during the year.

Much difference of opinion exists as to whether or not children living in a house infected with measles should be permitted to attend school. In his Supplement to the Annual Report of the Local Government Board for the year 1912—1913 Dr. Newsholme (the Chief Medical Officer of that Board) says “ Not infrequently objection is raised to the attendance at school of children “ who have had measles and are over the age of attendance in infant schools, who come from “ households in which there is a case of measles. Such attendance under the common conditions “ of town life is justifiable, so long as it remains true that most of the children above the infant “ classes have already had measles. All clinical evidence points to the conclusion that measles “ is infectious chiefly by direct conveyance from the patient, and that its conveyance by fomites “ (clothing, etc.), is negligible.”

## Enteric Fever.

The total number of cases of enteric fever notified in the whole of the districts in the Union was four. Three of these occurred in the Redcar district, the fourth in the Skelton and Brotton. One of the three in Redcar apparently was contracted from one of the other two in that district. The source of infection of the others I was unable to trace definitely :—one was possibly due to infected shell-fish, one probably contracted out of the district.

## Tuberculosis.

The following Table shows the number of cases, &c., notified in the several districts.

District.		Pulmonary.	Other Forms	Total.	Males.	Females.	Rate per 1000 of the population.
Guisborough Rural	...	11	6	17	7	10	2·16
Guisborough Urban	...	12	8	20	10	10	2·81
Loftus Urban	...	11	4	15	11	4	1·61
Redcar Urban	...	18	10	28	15	13	2·43
Saltburn Urban	...	2	4	6	2	4	1·71
Skelton & Brotton Urban		15	20	35	24	11	2·18
Totals, &c.	...	69	52	121	69	52	2·18

The Public Health (Tuberculosis) Regulations, 1912, which came into force February 1st, 1913, require the notification of cases of tuberculosis of all forms. The medical officer of health or an officer of the Local Authority acting under the instructions of the medical officer of health is required to make enquiries and take such steps as are necessary or desirable for investigating the source of infection, for preventing the spread of infection and for removing the conditions favourable to infection. The Local Government Board suggest that the Tuberculosis Officer should undertake the duties, or some of them, of the medical officer of health. As no such officer has as yet been appointed I have had no assistance in carrying out the duties.

For the better appreciation of the difficulty met with in endeavouring to trace the source of infection it is desirable to make a short statement of what is known as to the cause of tuberculosis and of the means by which it is disseminated. The disease is due to the invasion of the body, generally by inhalation or ingestion, of the specific bacilli. The time the symptoms manifest themselves bears no relation to the time of invasion. It is probable that in some instances the invasion is accompanied by symptoms of an indefinite character. In one individual



the bacilli may be overcome and destroyed, in another they may be imprisoned in some organ or tissue of the body remaining there in a dormant state ready to resume activity if by any means they are liberated. It will thus be understood that the true source of infection may be difficult to trace.

The sputum of a patient suffering from pulmonary tuberculosis contains the specific bacilli :—infection may be contracted therefrom by the inhalation or ingestion of fine particles of the dried sputum. The disease may be contracted by the use of tuberculous milk or meat :—the information at present possessed renders it impossible to say to what extent the one or the other is responsible.

Of the 121 houses in which tuberculosis was notified to exist 105 were visited by me, to 29 subsequent visits were paid. In by far the larger number of cases it was impossible to arrive at any conclusion as to the source of infection.

In each of thirteen instances it was ascertained that the disease had been contracted before the patient had come into the district. In each of five cases it is probable that the infection proceeded from a previous case in the house. Two patients, a soldier and an ex-soldier, apparently became infected whilst serving in the Army. Four either contracted the disease whilst resident in asylums or it was latent in them at the time of admission.

**Predisposing Causes.** Post-mortem examinations show that very many persons who have died from diseases other than tuberculosis have at one time or another been invaded by the tubercle bacilli :—the many are invaded, the few (comparatively) become the prey ;—the many overcome the foe, the few are unable to do so. The inability to overcome appears in some instances to be inherited, in others it results from living under conditions inimical to health generally. It is assumed therefore that whatever promotes the attainment of 'the sound mind in the sound body' increases resisting power. Soundness of mind, using that term in its broadest sense, is an important factor, a factor which is not sufficiently appreciated. There is little doubt that grief and worry lower the vital power considerably, probably to a greater extent even than unhealthy environment.

In one third of the cases enquired into it was ascertained that one or other near relative was suffering from or had succumbed to consumption. Could precise information on the point have been obtained there is little doubt that this proportion would have been found larger. The cause of death of a relative is not always known especially if that relative has died during the childhood of the patient whose case is under enquiry. Nor is it to be overlooked that whilst death from pulmonary tuberculosis (consumption) may be known to members of the family, death from some other form of the disease is not so likely to be.

Of the predisposing causes the chief are :—

Deficient nutrition resulting from unsuitable or improperly cooked food or its insufficiency.

Inefficient bedroom ventilation.

Inadequate or excessive clothing.

Neglect of minor ailments.

Prolonged physical or mental strain.

Bad home conditions causing neglect of children.

Alcoholic or other excesses.

Anxiety or grief.

Unhealthy environment.

Of the 105 houses visited by me it was found that in 72 the environment was good, in 32 it was fair, in one bad :—in 62 the home conditions were good, in 28 they were fair, in 15 bad. In the 15 mentioned there were signs of general neglect. There was no indication that the disease unduly affected persons following any particular employment. Of the male adult patients ten were miners, five labourers, three clerks, three engineers, two masons, two draughtsmen :—the employment of the remainder varied. Of the female adults four were or had been in domestic service,—twenty-three were 'housewives.' Two members of one family were attacked the disease



manifesting itself in each at such time as precluded any probability that the one contracted it from the other, moreover they resided in different districts and had not, previous to being attacked seen each other for some time. Many years ago this family came under my observation owing to the very bad home conditions which existed, conditions which undoubtedly contributed very materially to the members mentioned becoming a prey to the disease.

**Action Taken.**—Such advice was given in each case as the circumstances called for. Cuspidors and cards of instructions were supplied where needed. Where insanitary conditions existed (in very few instances were such found) steps were taken to have them remedied. In such cases as appeared desirable the names and addresses of school children living in the houses were forwarded to the Medical Inspector of school children in order that they might receive special attention. Bedrooms occupied by those suffering from tuberculosis were disinfected after the death or removal of the patient. In a few instances it was found either unnecessary or undesirable for various reasons to take any action.

Of the persons notified to be suffering from tuberculosis forty-two were insured (under the National Insurance Act) and forty-seven were the dependents of insured. Fourteen of the insured received Sanatorium treatment, one Domiciliary treatment. Of the fourteen mentioned four were discharged after periods varying from seventeen days to ten weeks :—these four died soon after discharge. Three improved after eight weeks treatment and are now following their usual employment. Two on discharge left the district,—their condition is unknown. The condition of two remains the same. One subsequently was admitted to another sanatorium,—one is at present very ill,—one is still in the sanatorium.

The number of deaths resulting from tuberculosis in the several districts was as follows :—

		Pulmonary.	Other forms.	Total.
Guisborough Rural	...	8	1	9
Guisborough Urban	...	8	4	12
Loftus Urban	...	3	2	5
Redcar Urban	...	10	7	17
Saltburn Urban	...	2	1	3
Skelton & Brotton Urban	...	8	7	15

There are certain desiderata in the treatment and prevention of tuberculosis (and these cannot be divorced) which require very careful consideration,—these are :—

(1) The exercise of the greatest possible care in the selection of cases sent to sanatoria ; unless this be done this one form of treatment will fall into disrepute.

(2) The provision of a hospital for those in a hopeless condition whose return home would be a menace to the health of the family

(3) The provision of some arrangement for the after-care of patients discharged from sanatoria.

**Table of Birth and Mortality Rates**  
**in the several Districts in the Union.**

DISTRICT.	Population estimated to middle of year 1913.	Births :— Uncorrected number.	Births :— Corrected number.	Birth Rate.	Deaths registered in District.	Death Rate.	Deaths of Non-residents registered in the District.	Deaths of Residents not registered in the District.	Deaths of Infants (under 1 year of age).	Infant Mortality Rate.	Total number of Deaths at all ages.	Death Rate.	Infectious Diseases Death Rate (excluding tuberculosis).	Tuberculosis Death Rate.	Diarrhoeal Diseases Death Rate.
Guisborough Rural	7860	190	190	24.17	119	15.13	2	7	17	89.4	124	15.77	1.14	1.14	Nil
Guisborough Urban	7100	214	211	29.71	114	16.05	16	8	22	109.0	101	14.22	1.25	1.69	0.14
Lofhus Urban	9800	279	279	30.00	121	13.01	0	9	37	132.6	130	13.97	1.62	0.54	0.9
Redcar Urban	11500	256	258	22.46	142	12.34	6	13	28	108.5	149	12.95	1.04	1.21	0.52
Salbourn Urban	3500	53	53	15.08	36	10.28	4	7	5	94.4	39	11.14	0.86	0.86	Nil
Skelton & Brotton Urban	16000	463	465	29.06	186	11.62	1	12	58	124.7	197	12.31	0.56	0.93	0.62
Totals and Averages	55260	1455	1456	26.34	718	12.99	29	51	167	114.6	740	13.39	1.04	1.10	0.47

### Factory and Workshop Act.

There are on the Register 7 factories and 44 workshops, as follows :—

Workshops :—				Factories :—			
Bakers	...	...	8	Printer	...	...	1
Dressmakers	...	...	7	Miller	...	...	1
Carpenters	...	...	5	Whitesmith	...	...	1
Plumbers	...	...	3	Laundry	...	...	1
Shoemakers	...	...	4	Electric works	...	...	1
Tailors	...	...	4	Sausage making	...	...	2
Upholsterers	...	...	3				<hr/> 7
Blacksmiths	...	...	2				
Whitesmith	...	...	1				
Cartwright	...	...	1				
Coachbuilder	...	...	1				
Ice-cream makers	...	...	2				
Fish-frier	...	...	2				
Laundries	...	...	2				
			<hr/> 44				

Including those made by myself sixty visits to Workshops and Factories were paid. One notice to cleanse was served and complied with.



Table III.

## Causes of, and Ages at Death during the year 1913.

CAUSES OF DEATH.			Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.								
			All ages.	Under 1 year.	1 and under 2 years	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and up-wards.
1			2	3	4	5	6	7	8	9	10
All causes	{	Certified      All									
		Uncertified									
1.	Enteric Fever	...      ...									
2.	Small Pox	...      ...									
3.	Measles	...      ...									
4.	Scarlet Fever	...      ...	1			1					
5.	Whooping Cough	...      ...	2	2							
6.	Diphtheria and Croup	...      ...									
7.	Influenza	..      ...									
8.	Erysipelas	...      ...									
9.	Phthisis (Pulmonary Tuberculosis)		2						2		
10.	Tuberculous Meningitis	...      ...									
11.	Other Tuberculous Diseases	...      ...	1					1			
12.	Cancer, malignant disease	...      ...	3							1	2
13.	Rheumatic Fever	..      ...									
14.	Meningitis	...      ...									
15.	Organic Heart Disease	...      ...	4						1		3
16.	Bronchitis	...      ...									
17.	Pneumonia (all forms)	...      ...	4					1	1	2	
18.	Other diseases of respiratory organs	...      ...									
19.	Diarrhœa and Enteritis	...      ...									
20.	Appendicitis and Typhlitis	...      ...									
21.	Cirrhosis of Liver	...      ...									
21a.	Alcoholism	...      ...									
22.	Nephritis and Bright's Disease	...      ...	2								2
23.	Puerperal Fever	...      ...									
24.	Other accidents and diseases of Pregnancy and Parturition	...      ...									
25.	Congenital Debility and Malformation, including Premature Birth	...      ...	3	3							
26.	Violent Deaths, excluding Suicide	...      ...	1							1	
27.	Suicide	...      ...									
28.	Other Defined Diseases	...      ...	16				1		2	4	9
29.	Diseases ill-defined or unknown										
			39	5	0	1	1	2	6	8	16

Infant Mortality.

Over twenty-two per cent. of the deaths in the Guisborough Union during the year occurred among infants (under one year of age). There is no doubt that a very large proportion of these had an ante-natal cause, that is, they resulted directly from the unhealthy condition of one or both parents. The large number of deaths certified to be due to premature birth, marasmus, inanition, convulsions, &c., indicates this. A reduction in the number of such deaths cannot be expected until individuals recognise that as they are so their children will be and recognising this will lead healthy lives.

It is a matter for congratulation that Education Authorities have at last realised the necessity of teaching cooking and house-work. Much of the unhealthy condition existing proceeds from lack of nourishment, not from lack of means to obtain that nourishment but of lack of knowledge of the feeding value of the various foods and of the best means of so cooking foods as to render them digestible. This teaching requires to be carried further, general hygiene should be taught practically.

Future Action.

In previous reports I have alluded to the necessity of providing accommodation for the isolation of cases of infectious disease and to the desirability of substituting water-closets for conveniences with fixed or moveable receptacles. The Council has now obtained a site for a sanatorium and is engaged in taking steps for its erection. The Council has also obtained the consent of the Local Government Board for the borrowing of money for the purpose of substituting water-closets for other conveniences and arrangements have been made for this work to be carried out at an early date.

One thing is still lacking, namely a public slaughterhouse outside the town. Admitted that there are only two inside the town (the third being outside) but both are at the rear of main streets and adjoining dwellings, in fact both form part of the dwelling premises.

This part of the report would not be complete without a reference to remarks made in previous years as to the necessity of *individual* action, remarks no less needed now than then. Inspections and special visits made show that in many houses the most elementary laws of health are unfulfilled,—domestic and personal cleanliness being neglected, ventilation of bedrooms more honoured in the breach than the observance, sunlight excluded by drawn blinds, &c. In too many instances little attempt is made to maintain conveniences in a cleanly condition, lime-washing of the walls of these is very rarely done. Reform of the conditions under the control of the individual is as requisite as that depending on the action of the local authority.

Infantile Mortality for the year 1913.

Certified—All.			
Measles	...	...	0
Whooping Cough	...	...	2
Diarrhœa	...	...	0
Enteritis	...	...	0
Premature Birth	...	...	1
Congenital Defects	...	...	1
Atrophy, Debility, Marasmus	...	...	1
Tuberculous Meningitis	...	...	0
Convulsions	...	...	0
Bronchitis	...	...	0
Pneumonia	...	...	0
Other Causes	...	...	0
			5

Saltburn,  
March 28th, 1914.

I am, Gentlemen,  
Yours obediently,  
W. W. STAINTHORPE.





## ADDENDUM.

Since this report was printed I have received from the Local Government Board a copy of a report on the Statistics of the Incidence of Infectious Diseases in England and Wales during the year 1913.

In an accompanying circular the Medical Officer says "It is hoped that you will utilise " these statistics in comparing your own with other districts similarly circumstanced in the same " county, and with other districts in other counties."

The factors influencing the prevalence of infectious diseases vary so much as to render it difficult to make a true comparison between one district and another. An urban district with its population massed together cannot be compared with one in which the population is scattered over a wide area. A town in which the inhabitants are mainly employed in some industry cannot be compared with one the inhabitants of which are chiefly of the commercial class. The proportion of children to adults may be much larger in one district than another; unless the proportion be known a true comparison cannot be made. One district differs from another as regards the importation of infection from without. A large number of the residents in Redcar travel to and from neighbouring towns daily, a number of children attend schools outside the district, a very large number of visitors (season and day) come into it during the summer: it is thus specially open to the importation of disease and therefore cannot be compared with any district where the conditions named do not prevail. As to scarlet fever and diphtheria no true comparison can be made unless the figures used are the average of a period of years. One district may have an epidemic one year with the result that the number of cases in the following years (4 or 5) is small. The next year another district may be subject to an epidemic.

Guisborough Rural district has the unenviable position of having the highest attack rate from scarlet fever of any rural district in the North Riding and only one *urban* district in the Riding is higher. Redcar has this unenviable position so far as regards diphtheria, it having the highest attack rate in the whole of the Riding.

The attack rate from enteric fever in the Administrative County (North Riding) was 0·19 per 1000,—in the Guisborough Union it was 0·06.

W. W. STAINTHORPE.

